

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000981**Date Inspected:** 26-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2330**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Zhi Jiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Floor Beams, side & bottom plates for OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) inspector, Scott Croff, was present at Zhenhua Port Machinery Company, Ltd (ZPMC) to observe the scheduled mock up construction and production construction of the SAS Superstructure.

Bay 7: The QA inspector observed heat straightening being conducted on floor beam components #FB015-03, weld 026 & FB007-W028, weld 026. The QA inspector noted that the procedure being used appears to be unapproved by the Engineer. The QA inspector noted that ZPMC Quality Control (QC) person Li Zhi Jiang is monitoring this work. The QA inspector Scott Croff notified the QA inspector Robert Cuellar of these observations. See the attached photos.

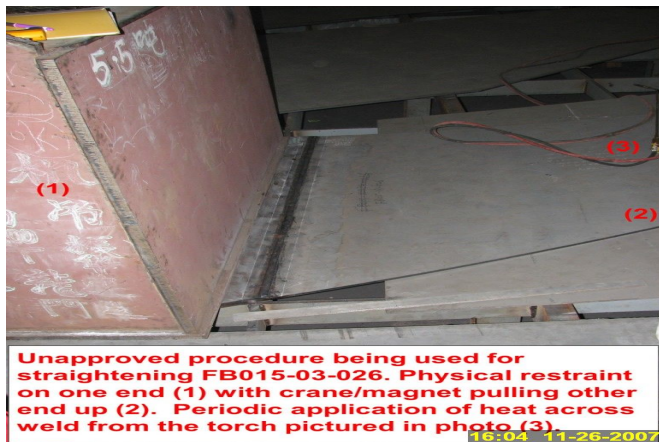
Bay 3: The QA inspector witnessed ultrasonic testing (UT) being conducted by ZPMC technicians Li Li Ming and E Shuiqin. The QA inspector witnessed UT being conducted on complete joint penetration (CJP) splice welds #BP002-01-001, BP004-01-001 and SP005-01-011. The QA inspector was accompanied by the QC Liaison (QCL) Fu Yu Hong. The QA inspector noted that the ZPMC technicians appeared to not be properly marking the X axis, Y axis and what face of the weld was being inspected. The QA inspector asked the QCL Fu, to ask the technicians how they are marking the inspected welds. The QA inspector was informed that the markings were as they appeared. The QA inspector also noted that the welds are not ground flush across any face and weld tabs have not been removed from the parts.

The QA inspector observed partially used spools of flux cored arc welding (FCAW) electrode that were located in the storage area behind Bay 2. The QA inspector noted that the spools do not appear to be wrapped in plastic, as

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described in section 8 of the approved welding quality control plan (WQCP). The QA inspector was also unable to determine how long the wire spools have not been in use. See the attached photo.



Summary of Conversations:

The QA inspector Scott Croff had conversations with the QCL Fu Yu Hong and the ZPMC technicians, as described above. The QCL is serving as the translator for the questions asked to the ZPMC technicians. The QA inspector also had conversations with the QCL that were not related to the observed UT. As noted above, the ZPMC technicians were asked about their marking method for X and Y axis on the welds being tested. The QA inspector also asked them where Face A was, as the welds are fairly symmetrical on both sides of the plate. The

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QCL then informed the QA inspector of these answers. The QA inspector was informed that the observed and noted markings were as they appear. The QA inspector remarked to the QCL that AWS D1.5 has different requirements for marking welds to ultrasonically tested. The QCL was not cooperative in relaying this to the ZPMC technicians or asking them why they were marking the welds this way.

As noted above, the QA inspector Scott Croff informed the QA inspector Robert Cuellar of the observed and apparently unapproved heat straightening that was being conducted on the floor beam components. The QA inspector Robert Cuellar was shown the attached photos and remarked that he would notify additional Caltrans personnel regarding any further action on this matter. The QA inspector Scott Croff also informed the QA inspector Robert Cuellar of other observations and conversations as reported above. There were no other notable conversations during this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Croff,Scott	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
